

M/049/032

TECHNICAL SPECIFICATIONS

**EKINS EAST QUARRY
(M/049/032)**

SITE RECLAMATION

RECEIVED

AUG 11 2005

DIV OF OIL GAS & MINING

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

101.01 GENERAL

- A. The WORK to be performed under this Contract shall consist of furnishing all plant, tools, equipment, materials, supplies, and manufactured articles and for furnishing all transportation and services, including fuel, power, water, and essential communications, and for the performance of all labor, WORK, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents.
- B. It is mandatory that the CONTRACTOR complete a pre-bid site visit on Tuesday, May 24th.
- C. Any questions from the CONTRACTOR shall be in written form to the ENGINEER by Friday May 27th, 2005. All questions and answers will be sent to all CONTRACTORS by Tuesday May 31st, 2005 in the form of Addendum #1.
- D. The CONTRACTOR shall deliver bids to Marty White at the Staker Parsons Companies office by 3:30pm on Friday, June 3rd, 2005.

101.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The WORK of this Contract includes furnishing and installing products and materials necessary for 1) demolition of existing concrete structures 2) general site grading to promote positive drainage with appurtenant items in accordance with the drawings and these specifications and 3) reclamation/seeding of disturbed areas. Appurtenant items include but are not limited to:
 - 1. Blasting of existing limestone quarry walls to the line and grades shown on the drawings. Material generated during blasting and concrete demolition and the site will be utilized for rough grading of the site.
 - 2. Loading, hauling and compaction of previously stockpiled soils at the site to the grades shown on the drawings.
 - 3. Installation of piping to convey storm water across existing paved access road as shown on the drawing.

101.03 CONTRACTOR EXPERIENCE

- A. The CONTRACTOR shall provide to the OWNER a summary of their experience on similar work performed, i.e. site demolition, blasting, earthwork etc.

SECTION 01010 - SUMMARY OF WORK

101.04 CONTRACT METHOD

- A. The WORK, hereunder, will be constructed based on lump sum prices.
- B. The CONTRACTOR shall include the General Conditions and Supplementary General Conditions of the Contract as a part of all of its subcontract agreements.

101.05 WORK SEQUENCE

- A. WORK shall be substantially complete and shall be ready for final payment in accordance with the agreement.

101.07 CONTRACTOR USE OF PROJECT SITE

- A. The CONTRACTOR's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices. The CONTRACTOR shall obtain water from an onsite source and shall provide their own power hookup and electrical connections as needed.
- B. All persons employed by or performing work for the CONTRACTOR must show current MSHA training certification and receive site specific hazard and safety training to be provided by the OWNER.

101.08 OWNER USE OF THE PROJECT SITE

- A. The CONTRACTOR shall cooperate with the OWNER/ENGINEER to minimize interference with the CONTRACTOR's operations and to facilitate the OWNER's operations. In any event, the OWNER shall be allowed access to the project site during the period of construction.

101.09 PROJECT MEETINGS

- A. **PRECONSTRUCTION CONFERENCE:**

Prior to the commencement of WORK at the site, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by the CONTRACTOR, its superintendent, and its subcontractors as appropriate. Other attendees will include OWNER Representative, ENGINEER and designated project representative, representatives of other utilities affected by the WORK, others as requested by CONTRACTOR, OWNER or ENGINEER.

- B. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and

SECTION 01010 - SUMMARY OF WORK

procedures for handling such matters established. This agenda will include the following:

1. CONTRACTOR'S tentative schedules.
 2. Transmittal, review, and distribution of CONTRACTOR's submittals.
 3. Processing applications for payment.
 4. Maintaining record documents.
 5. Critical Work sequencing.
 6. Field decisions and Change Orders.
 7. Use of project site, office and storage areas, security, housekeeping, and OWNER's needs.
 8. Major equipment deliveries and priorities.
 9. CONTRACTOR's assignments for safety and first aid.
- C. The ENGINEER will conduct the preconstruction conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.
- D. **PROGRESS MEETINGS:**
- The CONTRACTOR shall schedule and hold regular on-site progress meetings at least weekly and at other times as requested by ENGINEER or as required by progress of the WORK. The CONTRACTOR, ENGINEER, and OWNER shall be represented at each meeting. CONTRACTOR may at its discretion request attendance by representatives of its suppliers, manufacturer's and subCONTRACTORS.
- E. The CONTRACTOR shall conduct the meetings and provide for keeping and distribution of the minutes. The purpose of the meetings will be to review the progress of the WORK, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

101.01 SCOPE

- A. Payment for various items of the Bid Sheets, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the item of WORK being described, as necessary to complete the various items of the WORK all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Mining Safety and Health Administration of the U.S. Department of Labor (MSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of WORK.

101.02 APPLICATION FOR PAYMENT

- A. Application for Progress Payment shall be submitted in accordance with Article 14 of the General Conditions of this Contract.

101.03 LUMP SUM ITEMS

- A. No separate measurement of quantities will be made for those items of WORK performed on a lump sum basis, but the item will be constructed, complete, as required to complete the WORK shown on the Drawings and as described in the Specifications.
- B. Bid prices for lump sum items represent the total cost to the OWNER. Such price shall constitute full compensation for furnishing and placing of materials required to complete the item, and for all labor, equipment, tools and incidentals needed to complete the WORK in conformity with the plans and specifications. If additional work items not specified in the bid schedule are deemed necessary by the CONTRACTOR for the completion of the WORK the cost for these items shall be explained and included in the lump sum for project mobilization/demobilization.

101.04 UNIT PRICE ITEMS

- A. Determination of the actual quantities and classifications of Unit Price WORK performed by CONTRACTOR will be made by the ENGINEER in accordance with individual sections of specifications. Payment will be for actual quantities and at the

SECTION 01205 – MEASUREMENT AND PAYMENT

price stated in the Bid. Estimated quantities in the Bid are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01300 – CONTRACTOR SUBMITTALS

PART 1 - GENERAL

101.01 REQUIREMENT

- A. Wherever submittals are required hereunder, all such submittals by the CONTRACTOR shall be submitted to the ENGINEER.
- B. Within 14 days after the award of Construction Contract, the CONTRACTOR shall submit the following items to the ENGINEER for review:
 - 1. A preliminary construction schedule indicating the starting and completion dates of the various stages of the WORK.
 - 2. Four copies of the manufacturer's technical submittal information for the following items:
 - a. 4-inch perforated ADS pipe, fittings and couplings.
 - b. 6-inch solid/perforated ADS pipe(s), fittings and couplings.
 - 3. A list of CONTRACTOR's personnel and documentation of their required safety training or plans and schedule for obtaining the necessary training

101.02 CONTRACTOR'S SCHEDULES

- A. Time Of Submittals:

At the preconstruction conference, the CONTRACTOR shall submit for acceptance by the ENGINEER, a preliminary construction schedule for the WORK, showing its general plan for orderly completion of the WORK and showing in detail its planned mobilization of equipment, sequence of early operations, and timing of procurement of materials and equipment. The construction schedule produced and submitted shall indicate a project completion date on or before the contract completion date. The ENGINEER within 14 days after receipt of the preliminary construction schedule, shall meet with a representative of the CONTRACTOR to review the preliminary plan and construction schedule. After review by ENGINEER, revise and resubmit as required.

- B. Construction Schedule Revisions:

Submit revised schedules with each Application of Payment, reflecting changes since previous submittal.

SECTION 01300 – CONTRACTOR SUBMITTALS

101.03 PROPOSED SUBSTITUTES (OR EQUAL) ITEMS

- A. For convenience in designation in the Contract Documents, any material, product, or equipment to be incorporated in the WORK may be designated under a brand or trade name or the name of a manufacturer and its catalog information. The use of any substitute material, product, or equipment which is equal in quality and utility and possesses the required characteristics for the purpose intended will be permitted, subject to the following requirements:
1. The burden of proof as to the quality and utility of any such substitute material, product, or equipment shall be upon the CONTRACTOR.
 2. The ENGINEER will be the sole judge as to the quality and utility of any such substitute; decision shall be final.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01400 - QUALITY CONTROL

PART 1 - GENERAL

101.01 SITE INVESTIGATION AND CONTROL

- A. The CONTRACTOR shall verify all dimensions in the field and shall check field conditions continuously during construction. The CONTRACTOR shall be solely responsible for any inaccuracies built into the work due to his failure to comply with this requirement.
- B. The CONTRACTOR shall inspect related and appurtenant work and shall report in writing to the ENGINEER any conditions which will prevent proper completion of the work. Failure to report any such condition shall constitute acceptance of all site conditions, and any required removal, repair, or replacement caused by unsuitable conditions shall be performed by the CONTRACTOR at his sole cost and expense.

101.02 DESCRIPTION OF WORK

- A. The work shall be conducted under the general observation of the ENGINEER and shall be subject to inspection by representatives of the OWNER to ensure strict compliance with the requirements of the Contract Documents. Such inspection may include mill, plant, shop or field inspection, as required. The ENGINEER shall be permitted access to all parts of the WORK, including plants where materials or equipment are manufactured or fabricated.
- B. The presence of the ENGINEER or any inspector(s), however, shall not relieve the CONTRACTOR of the responsibility for the proper execution of the WORK in accordance with all requirements of the Contract Documents. Compliance is a duty of the CONTRACTOR, and said duty shall not be avoided by any act or omission on the part of the ENGINEER or any inspector(s).
- C. All materials and articles furnished by the CONTRACTOR shall be subject to rigid inspection, and no materials or articles shall be used in the WORK until they have been inspected and accepted by the ENGINEER or his authorized representative. No WORK shall be backfilled, buried, cast in concrete, hidden or otherwise covered until it has been inspected by the ENGINEER or his authorized representative. Any WORK so covered in the absence of inspection shall be subject to uncovering. Where un inspected WORK cannot be uncovered, such as in concrete cast over reinforcing steel, all such WORK shall be subject to demolition, removal, and reconstruction under proper inspection, and no addition payment will be allowed therefore.

SECTION 01400 - QUALITY CONTROL

101.03 TIME OF INSPECTION AND TESTS

- A. Except as otherwise provided in these specifications, performance of the required tests will be by the OWNER, and all costs therefore will be borne by the OWNER at no cost to the CONTRACTOR; except, that the costs of any test which shows unsatisfactory results shall be borne by the CONTRACTOR. Whenever the CONTRACTOR is ready to backfill, bury, cast in concrete, hide, or otherwise cover any WORK under the contract, he shall notify the ENGINEER not less than 24 hours in advance to request inspection before beginning any such WORK of covering. Failure of the CONTRACTOR to notify the ENGINEER at least 24 hours in advance of any such inspection shall be reasonable cause for the ENGINEER to order a sufficient delay in the CONTRACTOR's schedule to allow time for such inspections and any remedial or corrective WORK required, and all costs of such delays, including its effect upon other portions of the WORK, shall be borne by the CONTRACTOR.

101.04 RIGHT OF REJECTION

- A. The ENGINEER, acting for the OWNER shall have the right, at all times and places, to reject any articles or materials to be furnished hereunder which, in any respect, fail to meet the requirements of these specifications, regardless of whether the defects in such articles or materials are detected at the point of manufacture or after completion of the WORK at the site. If the ENGINEER or inspector, through an oversight or otherwise, as accepted materials or WORK which is defective or which is contrary to the specifications, such material, no matter in what stage or condition of manufacture, delivery, or erection, may be rejected by the ENGINEER for the OWNER.
- B. The CONTRACTOR shall promptly remove rejected articles or materials from the site of the WORK after notification of rejection.
- C. All costs of removal and replacement of rejected articles or materials as specified herein shall be borne by the CONTRACTOR.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01500 – CONSTRUCTION FACILITIES AND ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

101.01 GENERAL

- A. The CONTRACTOR shall provide and maintain adequate construction facilities and perform the necessary work to minimize the impact and inconvenience of the construction activities.

101.02 SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures in accordance with Part 1926 of the OSHA Standards for Construction. Contractor and contractor's personnel will not be allowed access to any plant building for use of toilet facilities.

101.03 ELECTRICITY SOURCE

- A. The contractor shall provide their own hookups for electrical power. All costs associated with hookups and power will be the sole responsibility of the contractor.

101.04 BARRIERS AND ENCLOSURES

- A. Provide as required to prevent public entry to construction areas, and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades as required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, and puddling or continuous running water.

101.05 PROTECTION OF INSTALLED WORK

- A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage. Repair or replace at OWNER's option any installed work damaged by traffic, the public, or Work operations.
- B. Prohibit traffic on restored lawn and landscaped areas.

101.06 DUST, WATER AND NOISE CONTROL

- A. Surface Water, Erosion and Sediment Control:
 - 1. Surface water shall be controlled so that the construction areas are not allowed to become wet from runoff from adjacent areas. Surface water shall be directed away from these areas but not directed toward adjacent property,

SECTION 01500 – CONSTRUCTION FACILITIES AND ENVIRONMENTAL CONTROLS

buildings, or any improvement that may be damaged by water. Surface water shall not be allowed to enter sanitary sewers.

2. Maintain excavations free of water. Provide and operate pumping equipment.
3. Prevent erosion and sedimentation.
4. Provide temporary measures such as berms, dikes, and drains, to prevent water flow.

B. Dust Control:

1. Dust control measures shall be implemented by application of water to all work areas, storage areas, haul and access roads, or other areas affected by construction. All water to be used for dust control shall be obtained from an onsite source.
2. All work shall be in compliance with the Federal, State, and local air pollution standards, and not cause a hazard or nuisance to personnel and the public in the vicinity of the work.
3. Provide and operate at least one mobile tank sprinkling unit or other positive means to prevent air-borne dust from dispersing into atmosphere.
4. Other methods of dust control for haul and access roads may include chemical treatment or other method as approved by the ENGINEER.
5. Execute work by methods to minimize raising dust from construction operations.

C. Noise Control:

1. Execute construction between the hours as allowed unless otherwise approved by OWNER.

101.07 CONSTRUCTION CLEANING

- A. All public and private areas used as haul roads shall be continuously maintained and cleaned of all construction caused debris such as mud, sand, gravel, soils, pavement fragments, sod, etc. Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.
- B. Public roads shall be maintained in accordance with applicable ordinances and regulations.

SECTION 01500 – CONSTRUCTION FACILITIES AND ENVIRONMENTAL CONTROLS

- C. Through all phases of construction, including suspension of work, and until final acceptance of the project, the CONTRACTOR shall keep the work site clean and shall remove daily all refuse, damaged materials, unusable materials, and all other trash or debris that he has created from his construction activities.
- D. Materials and equipment shall be removed from the site as soon as they are no longer necessary; and upon completion of the work and before final inspection, the entire work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance. All cleanup costs shall be included in the CONTRACTOR's Bid.

101.08 PROJECT IDENTIFICATION

- A. Not Used

101.09 TRAFFIC REGULATION

- A. Comply with all requirements of the applicable governmental organization responsible for regulating traffic including creating, submitting for review approval, and maintaining an appropriate traffic control plan.
- B. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and OWNER's operations.
- C. Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- D. Prevent parking on or adjacent to access roads or in non-designated areas.
- E. Provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroach on public traffic lanes.
- F. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
- G. Consult with authorities, establish public thoroughfares to be used for haul routes and site access.
- H. Confine construction traffic to haul routes and designated construction limits.
- I. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
- J. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.

SECTION 01500 – CONSTRUCTION FACILITIES AND ENVIRONMENTAL CONTROLS

- K. Relocate as work progresses, to maintain effective traffic control.
- L. Post-mounted traffic control and informational signs, traffic cones and drums, flagman equipment: as approved by local jurisdictions.
- M. Where local jurisdictions have no requirements, construct and erect according to "Manual on Uniform Traffic Control Devices for streets and Highway" (MUTCD).
- N. Remove equipment and devices when no longer required. Repair damage caused by installation. Remove post settings to a depth of three feet.

101.10 REMOVAL

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities. Remove underground installations to a depth of two feet; grade site as indicated. Restore existing facilities used during construction to specified, or to original, condition.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01600 – MATERIAL AND EQUIPMENT

PART 1 - GENERAL

101.01 GENERAL

- A. It is the responsibility of the CONTRACTOR to provide products as specified in the Contract Documents free from manufacturer defects or damage from shipping.

101.02 PRODUCTS

- A. Products include all material, equipment and systems.
- B. Comply with specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a specification section shall be the same, and shall be interchangeable.
- D. Do not use products removed from an existing structure, pipeline, etc., except as specifically required, or allowed, by Contract Documents.

101.03 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition.
- B. Provide equipment and personnel to handle products by methods to prevent damage.
- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

101.04 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

SECTION 01600 – MATERIAL AND EQUIPMENT

101.05 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only; Any product meeting those standards.
- B. Products Specified by Naming One or More Manufacturers with a Provision of Substitutions: Submit a request for substitution for any manufacturer not specifically named.
- C. Product Specified by Naming Several Manufacturers: Products of named manufacturers meeting specifications: no options, or substitutions allowed.
- D. Products Specified by Naming Only One Manufacturer: No options, no substitutions allowed.

101.06 PRODUCTS LISTS

- A. Within 10 days after date of Owner-CONTRACTOR Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number (if applicable) of each product.

101.07 SUBSTITUTIONS

- A. Only within 15 days after date established in Notice to Proceed will ENGINEER consider requests from CONTRACTOR for substitutions. Subsequently, substitutions will be considered only when a product becomes unavailable due to no fault of CONTRACTOR.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. Request constitutes a representation that CONTRACTOR:
 - 1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
 - 2. Will provide the same warranty for substitution as for specified product.
 - 3. Will coordinate installation and make other changes which may be required for WORK to complete in all respects.
 - 4. Waives claims for additional costs which may subsequently become apparent.

SECTION 01600 – MATERIAL AND EQUIPMENT

- D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request, or when acceptance will require substantial revision of Contract Documents.
- E. ENGINEER will determine acceptability of proposed substitution, and will notify CONTRACTOR of acceptance or rejection in writing within a reasonable time.
- F. Only one request for substitution will be considered for each product. When substitution is not accepted, CONTRACTOR must provide specified product.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01700 – CONTRACT CLOSEOUT

PART 1 - GENERAL

101.01 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. When CONTRACTOR considers WORK has reached final completion, submit written certification that Contract Documents have been reviewed, WORK has been inspected, and that WORK is complete in accordance with Contract Documents and ready for ENGINEER's review.
- C. In addition to submittals required by the conditions of the Contract, provide submittals required by governing authorities, and submit a final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
- D. ENGINEER will issue a final Change Order reflecting approved adjustments to Contract Sum not previously made by Change Order.

101.02 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean site; sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site.

101.03 PROJECT RECORD DOCUMENTS

- A. Provide completed record drawings and other required closeout documents prior to requesting final payment.
- B. Store record documents separate from those used for construction.
- C. Keep documents current; do not permanently conceal any WORK until required information has been recorded.
- D. At Contract closeout, submit documents with transmittal letter containing date, Project title, CONTRACTOR's name and address, list of documents, and signature of CONTRACTOR.

SECTION 01700 – CONTRACT CLOSEOUT

101.04 OPERATION AND MAINTENANCE DATA

Not Used

101.05 MAINTENANCE AND GUARANTEE

- A. The CONTRACTOR shall comply with the maintenance and guarantee requirements contained in Article 13.01 of the General Conditions.
- B. Replacement of earth fill or backfill, where it has settled below the required finish elevations, shall be considered as a part of such required repair work, and any repair or resurfacing constructed by the CONTRACTOR which becomes necessary by reason of such settlement shall likewise be considered as a part of such required repair work unless the CONTRACTOR shall have obtained a statement in writing from the affected private owner or public agency releasing the OWNER from further responsibility in connection with such repair or resurfacing.
- C. The CONTRACTOR shall make all repairs and replacements promptly upon receipt of written order from the OWNER. If the CONTRACTOR fails to make such repairs or replacements promptly, the OWNER reserves the right to do the WORK and the CONTRACTOR and his surety shall be liable to the OWNER for the cost thereof.
- D. Comply with General Conditions and ordinances of local jurisdictions having authority.
- E. Make periodic inspections during guarantee period and correct defective work or correct defective work as directed by the OWNER or appropriate governing authority.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 01720 – RECORD DRAWINGS

PART 1 - GENERAL

101.01 RECORD DRAWINGS

- A. The CONTRACTOR shall keep and maintain, at the job site, one record set of drawings. On these, it shall mark all project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the Contract Drawings, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Drawings, said record drawings shall be supplemented by any detailed sketches as necessary or directed to indicate, fully, the WORK as actually constructed. These master record drawings of the CONTRACTOR's representation of as-built conditions, including all revisions made necessary by addenda, change orders, and the like shall be maintained up-to-date during the progress of the WORK.
- B. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, such as motor control centers and the like, the record drawings shall be updated by indicating those portions which are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.
- C. Record drawings shall be accessible to the ENGINEER at all times during the construction period and shall be delivered to the ENGINEER upon completion of the WORK.
- D. Requests for partial payments will not be approved if the record drawings are not kept current, and not until the completed record drawings, showing all variations between the WORK as actually constructed and as originally shown on the Contract Drawings or other Contract Documents, have been inspected by the ENGINEER.
- E. Final payment will not be approved until the CONTRACTOR-prepared record drawings have been delivered to the ENGINEER. Said up-to-date, record drawings may be in the form of a set of prints with carefully plotted information overlaid in pencil.
- F. Upon substantial completion of the WORK and prior to final acceptance, the CONTRACTOR shall complete and deliver a complete set of record drawings to the ENGINEER for transmittal to the OWNER, conforming to the construction records of the CONTRACTOR. This set of drawings shall consist of corrected plans showing the reported location of the WORK. The information submitted by the CONTRACTOR and incorporated by the ENGINEER into the Record Drawings will

SECTION 01720 – RECORD DRAWINGS

be assumed to be reliable, and the ENGINEER will not be responsible for the accuracy of such information, nor for any error or omissions which may appear on the Record Drawings as a result.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

- END OF SECTION -

SECTION 02115 - SITE CLEARING/DEMOLITION

PART 1 – GENERAL

101.01 DESCRIPTION

- A. This section includes all operations necessary for removal of constructed obstacles from the defined limits of the project area.

101.02 DEFINITIONS

- A. Clearing – consists of removal and disposal of existing debris, storage/fuel tanks, scrap and steel. All materials unsuitable for use as rough grading fill will be removed off-site and disposed of by Contractor.
- B. Demolition – consists of dismantling of existing concrete structures, slabs, retaining walls and tank surrounds.

101.03 RELATED SECTIONS

- A. Section 02205 - Earthwork Materials
- B. Section 02280 – Reinforce Concrete Pipe (RCP)
- C. Section 02332 – Reclamation

101.04 REGULATORY REQUIREMENTS

- A. Coordinate clearing work with OWNER to determine which items will be the CONTRACTOR's responsibility.

PART 2 – MATERIALS

Not Used.

PART 3 – EXECUTION

301.01 PREPARATION

- A. Verify that existing plant life designated to remain is tagged or identified.
- B. Identify a stockpile area for placing topsoil, and removed boulders that are not acceptable for use in construction activities.

SECTION 02115 - SITE CLEARING/DEMOLITION

301.02 PROTECTION

- A. Protect existing utilities from damage.
- B. Protect trees, plant growth, and features designated to remain as final landscaping.
- C. Protect benchmarks, survey control points from damage or displacement.

301.03 CLEARING

- A. Clear areas required for access to site and execution of Work.

301.04 REMOVAL

- A. The contractor shall reuse all materials resulting from demolition operations as rough grading fill.

END OF SECTION

SECTION 02205 – EARTHWORK MATERIALS

PART 1 – GENERAL

101.01 DESCRIPTION

- A. This section covers obtaining permission, permits, clearances, etc; as necessary to develop source(s), blasting, dozing, loading, hauling, placing and compacting earthwork materials described herein, as shown on the Drawings and/or required by these Specifications.

101.02 DEFINITIONS

- A. Rough Grading Material – rock generated from blasting activities at the site, concrete rubble from on-site demolition and misc. stockpiled materials.
- B. Road Base – previously stockpiled granular soils located at the site.
- C. Rap Pile – previously stockpiled at the site by owner. To be removed and disposed at an off-site location by owner.
- D. Topsoil – previously stockpiled fine-grained native soils or newly imported organic soils, all generated/delivered to site by the owner

101.03 RELATED SECTIONS

- A. Section 02115 – Site Clearing/Demolition
- B. Section 02280 – Reinforced Concrete Pipe (RCP)
- C. Section 02332 – Reclamation

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

301.01 Rough Grading

- A. Place rubble generated from on-site blasting and demolition into existing pit, no off-site soils, debris or rubble shall be transported by the CONTRACTOR to the site for use in rough grading activities.
- B. Load, haul, place and compact road base material and other stockpiled materials in

SECTION 02205 – EARTHWORK MATERIALS

existing pit to bring to within 1 foot of the grade shown on project drawings.

301.03 STOCKPILE CLEANUP

- A. Re-grade stockpile areas to remove any rough or low spots and prevent free standing surface water.

END OF SECTION

SECTION 02280 – REINFORCED CONCRETE PIPE

PART 1 – GENERAL

101.01 SECTION INCLUDES

- A. Furnish and install perforated-corrugated high-density polyethylene pipe with a smooth interior surface for leachate collection as shown on the drawings.

101.02 RELATED SECTIONS

- A. Section 02115 – Site Clearing/Demolition
- B. Section 02205 – Earthwork Materials
- C. Section 02332 – Reclamation

101.03 SUBMITTALS

- A. Provide manufacturer's certification for the product to the engineer

PART 2 – PRODUCTS

201.01 MATERIAL

- A. Acceptable products are AMCOR precast 12-in inside diameter pipe. Reinforced ASTM C76 12C76C3F Class II

PART 3 – EXECUTION

301.01 STORAGE AND HANDLING

- A. All pipe, fittings, etc. shall be carefully handled and protected against damage, impact shocks and free fall. All pipe damaged prior to Substantial completion shall be repaired or replaced by the Contractor.

301.02 INSTALLATION

- A. In general; installation shall be as recommended by the manufacturer and as shown on the project plans.
- B. The Contractor shall inspect each pipe and fitting prior to installation to ensure that there are no damaged portions of the pipe. Damaged pipe shall be replaced with new undamaged sections of pipe.

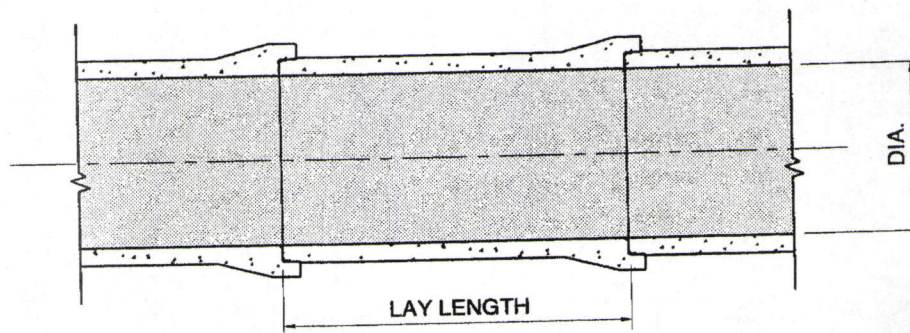
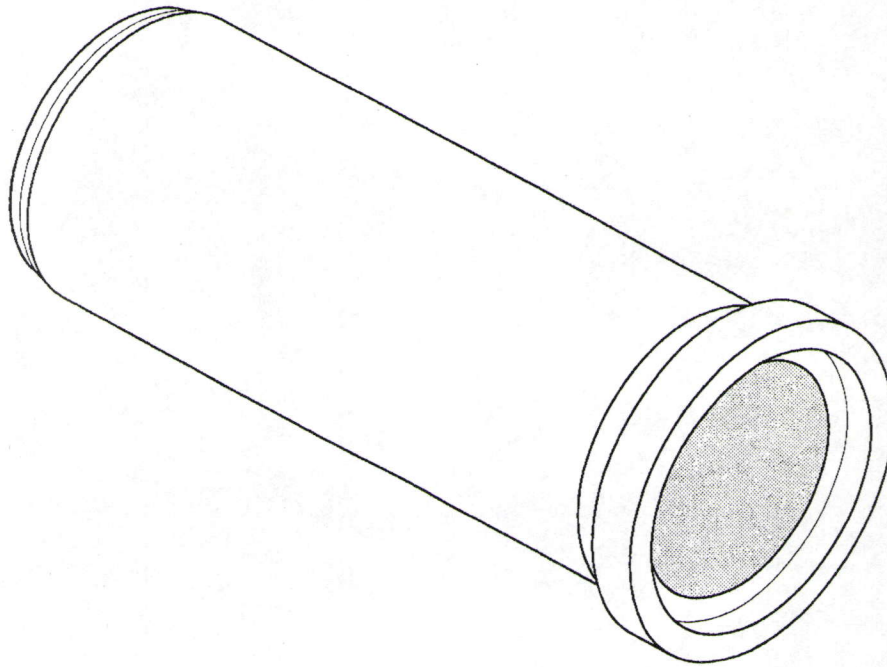
SECTION 02280 – REINFORCED CONCRETE PIPE

- C. No blocking will be permitted and the bedding shall be such that it forms a continuous, solid bearing for the full length of the pipe.
- D. No pipe shall be installed upon a foundation into which frost has penetrated or any time that there is a danger of the formation of ice or penetration of frost at the bottom of the excavation. No pipe shall be laid unless it can be established that the trench will be backfilled before the formation of ice and frost occurs.

END OF SECTION

AMCOR *Precast***CONCRETE PIPE****PROFILE GASKET**

12", 15", 18", 24", 30"



INSIDE DIA.	NON-REIN. - ASTM C14		REINFORCED - ASTM C76				LAY LENGTH	WEIGHT/ LINEAR FT.
	CODE	CLASS	CLASS II CODE	CLASS III CODE	CLASS IV CODE	CLASS V CODE		
12"	12C14F	3	12C76C2F	12C76C3F	12C76C4F	12C76C5F	8'	120#
15"	15C14F	3	15C76C2F	15C76C3F	15C76C4F	15C76C5F	8'	152#
18"	18C14F	3	18C76C2F	18C76C3F	18C76C4F	18C76C5F	8'	194#
24"	24C14F	2	24C76C2F	24C76C3F	24C76C4F	24C76C5F	8'	292#
30"	30C14F	1	30C76C2F	30C76C3F	30C76C4F	30C76C5F	8'	440#

*ASTM C655 SPECIAL DESIGN PIPE AVAILABLE.

SEE REVERSE SIDE FOR DETAILS.

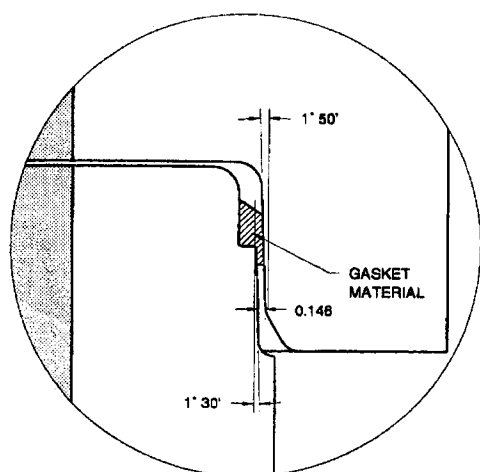
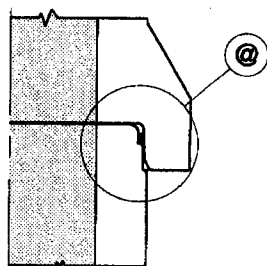
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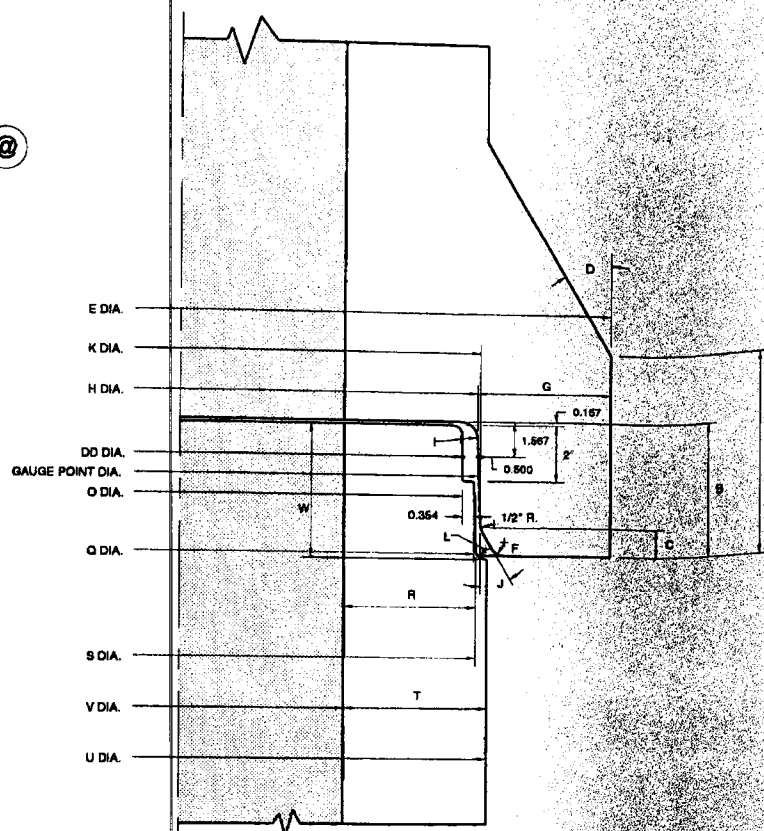
DETAIL DRAWING FOR:

CONCRETE PIPE PROFILE GASKET

12", 15", 18", 24", 30"



SECTION @
JOINT DETAIL



DETAIL SECTION

INSIDE DIAMETER	A	B	C	D	E DIA.	F RADIUS	G	H DIA.
12"	5.125	3.750	0.825	30"	20.825	0.375	2.375	15.876
15"	5.250	3.750	0.825	30"	24.125	0.375	2.500	19.126
18"	5.250	3.750	0.825	30"	27.825	0.375	2.625	22.376
24"	6.750	3.875	0.825	30"	35.825	0.375	3.121	29.383
30"	6.125	3.875	0.825	30"	43.125	0.375	3.613	35.900

INSIDE DIAMETER	RADIUS	J	K DIA.	L RADIUS	DD	GAUGE POINT	O DIA.	Q DIA.
12"	0.500	23"	16.116	0.188	4.976	15.976	15.014	15.880
15"	0.500	23"	19.366	0.188	8.226	19.226	18.264	19.130
18"	0.500	23"	22.616	0.188	11.476	22.476	21.514	22.380
24"	0.500	23"	29.631	0.188	28.483	29.483	28.521	29.387
30"	0.500	23"	36.148	0.250	35.000	36.000	35.036	35.904

INSIDE DIAMETER	R	S DIA.	T	U DIA.	V DIA.	W
12"	2.000	16.000	2.250	16.500	12.000	3.593
15"	2.125	19.250	2.375	19.750	15.000	3.593
18"	2.250	22.500	2.500	23.000	18.000	3.593
24"	2.750	29.515	3.000	30.000	24.000	3.718
30"	3.016	36.032	3.500	37.000	30.000	3.718

SECTION 02332 – RECLAMATION

PART 1 – GENERAL

101.01 DESCRIPTION

- A. This section includes all operations necessary for the final grading of disturbed soil areas at the site.

101.02 DEFINITIONS

Not Used.

101.03 RELATED SECTIONS

- A. Section 02115 – Site Clearing
- B. Section 02205 – Earthwork Materials
- C. Section 02280 – Reinforced Concrete Pipe (RCP)

PART 2 – MATERIALS

201.01 TOPSOIL

- A. Topsoil to be used in final grading and preparation of surfaces for seeding shall be provided, delivered to and stockpiled at the site by the OWNER

PART 3 – EXECUTION

301.01 GRADING

- A. Fine grading – final grading shall be conducted to promote drainage from the site as shown on the drawings.
- B. Re-grade stockpile areas to remove any rough or low spots.

301.06 FINAL COVER, SEEDING, LANDSCAPING AND CONTOURING

- A. Rip or disc 12" of topsoil area's for seed prep
- B. Place and grade 6-inches of topsoil for seeding.
- C. Prepare and hydro-seed the topsoil with shallow rooting, drought-tolerant, native grass, shrub and plant species comprised of the following seed varieties.

SECTION 02332 – RECLAMATION

1. 60-65% grasses (equal percentages of the following in the seed mix):

- a. Indian Rice grass – *Achnatherum hymenoides*
- b. Blue Grama Grass – *Bouteloua gracilis*
- c. Little Bluestem – *Schizachyrium scoparium*
- d. Sideoats Grama – *Bouteloua curtipendula*
- e. Needle and Thread Grass – *Hesperostipa comata*
- f. Alkali Sacaton – *Sporobolus airoides*

2. 35-40% perennial species (equal percentages of the following in the seed mix):

- a. Fringed Sagebrush – *Artemisia frigida*
- b. Utah Sweetvetch – *Astragalus utahensis*
- c. Milvetch Species – *Astragalus spp.*
- d. Daisy – *Erigeron spp.*
- e. Lewis Blue Flax – *Limum lewisii*
- f. Aster Species – *Aster spp.*
- g. Penstemon Species – (Rocky Mountain, Pine leaf, Firecracker, Wasatch, Utah, Low, Whipple, Fremont)
- h. Blanketflower – *Gaillardia aristata*
- i. Buckwheat – *Eriogonum spp.*
- j. Blobemallow – *Sphaeralcea spp.*

END OF SECTION